

City of Austin  
Water Reclamation  
Program

# City of Austin Water Reclamation Initiative

## *Water Reclamation in Austin* *Environmental Board Meeting*

**December 1, 2010**





# *What is Reclaimed Water ?*

- Highly treated wastewater effluent
- Quality – akin to river water
- Demand management tool
- Major uses
  - Irrigation
  - Cooling
  - Manufacturing
  - Toilet flushing



# *How it Works*



# The Current System

Miles of trans. main – 30

Customers – 32

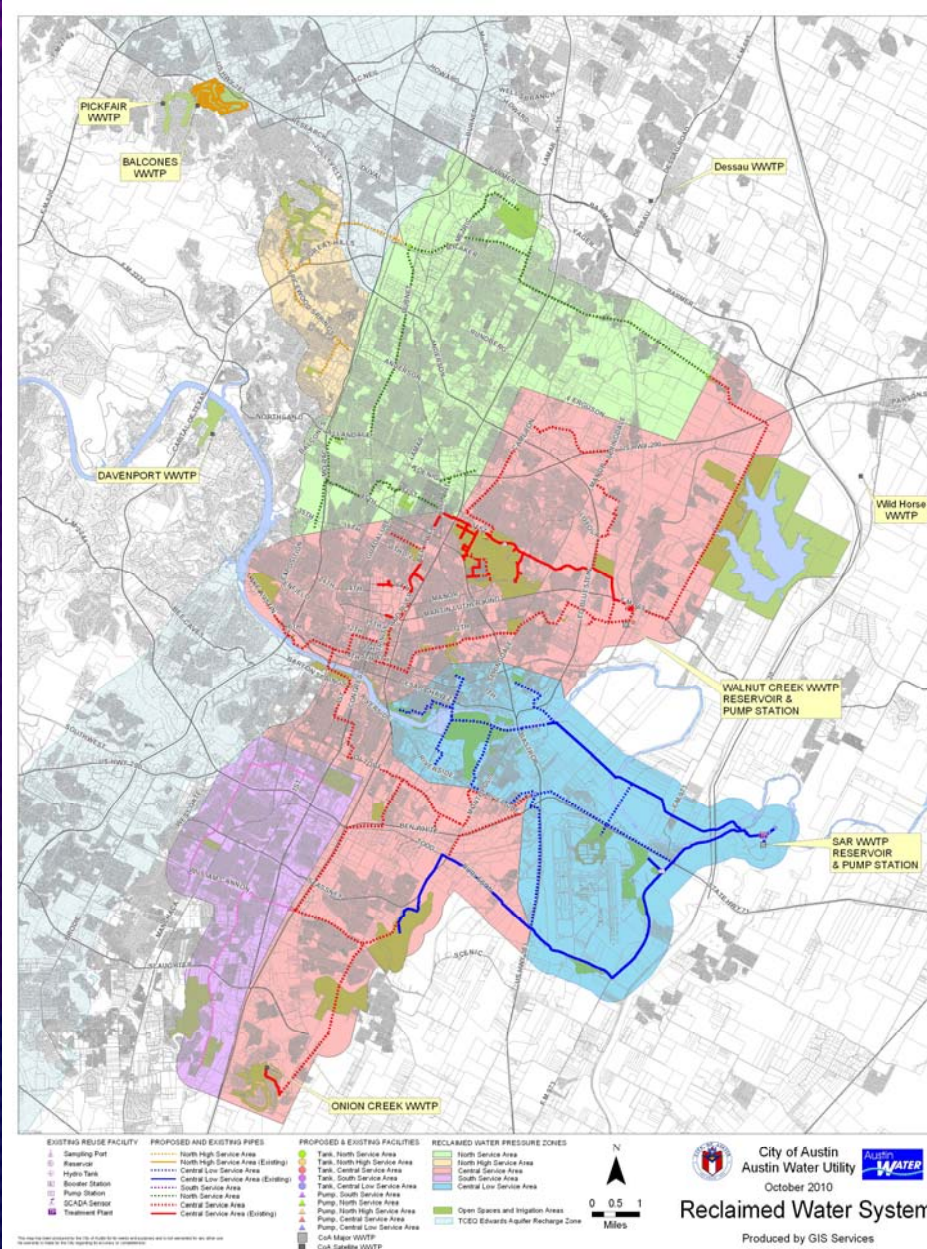
Annual use – 1.1 billion  
gallons (FY10)

How much water is that?

1,630 olympic-sized  
swimming pools

27.5 million car washes

687 million toilet flushes



# *Reclaimed Water Customers*

## Existing (32)

- Clay/Kizer Golf Course
- Sand Hill Energy Center
- Hornsby Bend
- First Tee
- Morris Williams GC
- Onion Creek GC
- Lost Creek GC
- Balcones CC
- Frost Bank
- Home Depot

## Planned (270)

- University of Texas
- Saint Paul's Church
- Hancock Golf Course
- Bartholomew Park
- Mueller Parks
- East Avenue
- Capital Complex
- Downtown
- Guerrero Park
- ACC Riverside





# Plans and Opportunities

Miles of trans. main – 130

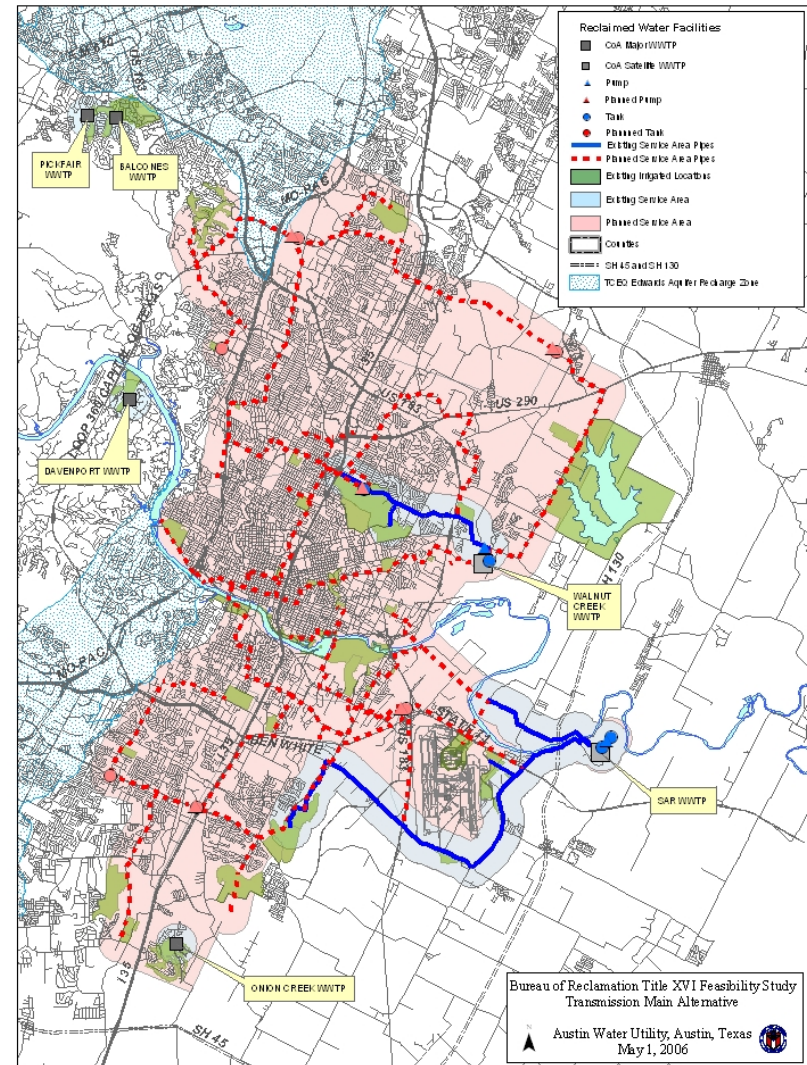
Annual use – 5.48 billion gallons

How much water is that?

8,150 olympic-sized swimming pools

109 million car washes

3.42 billion toilet flushes



# *Benchmarks*

- Israel – reclaims 70% of wastewater
- Spain – reclaims 12% of wastewater
- US – reclaims 5-6%, eventually 30-40%
- San Antonio – reclaims 4% of wastewater
- Austin – reclaims 4% of wastewater



# *Benchmarks (cont.)*

## Austin

1<sup>st</sup> customer: 1974

No cross-connections

Capacity: 29,183 af/yr

Driver: deferred plant  
construction

Rate: \$1.13/kgal

Cost: \$180 million

Time frame: 27 yrs

Length: 30→130 miles

## San Antonio

1<sup>st</sup> customer: 1999

1 cross-connection

Capacity: 35,000 af/yr

Driver: limited raw  
water supply

Rate: \$0.23-1.00/kgal

Cost: \$125 million

Time frame: 5 yrs

Length: 75→110 miles





# *Current Construction*

- Guerrero Park 1&2 – 3,500'
- ABIA Main – 8,100
- UT Main – 22,000'
- 51<sup>st</sup> Street Tank
- \$5 million/year





# *Preliminary Construction*

- Walnut Creek Tank/Pump Station
- Smith Road Extension – 10,000
- Main to Montopolis – 13,500'
- BAE Systems – 6,500'



# 51<sup>st</sup> Street Tank

- Environmental considerations
  - Photovoltaics
  - Rainwater harvesting
  - Green concrete
- Aesthetics
- 1<sup>st</sup> of 7



# Bulk Water Station

- For water hauling trucks
  - Road construction
  - Dust control
  - Irrigation





# *Downtown/Toilet Flushing*

- Growing buildings –  
> growing water use
- 60-80% of office building use is for toilet flushing
- New potable mains or new reclaimed mains ???



*THANK YOU*

*Q&A*

